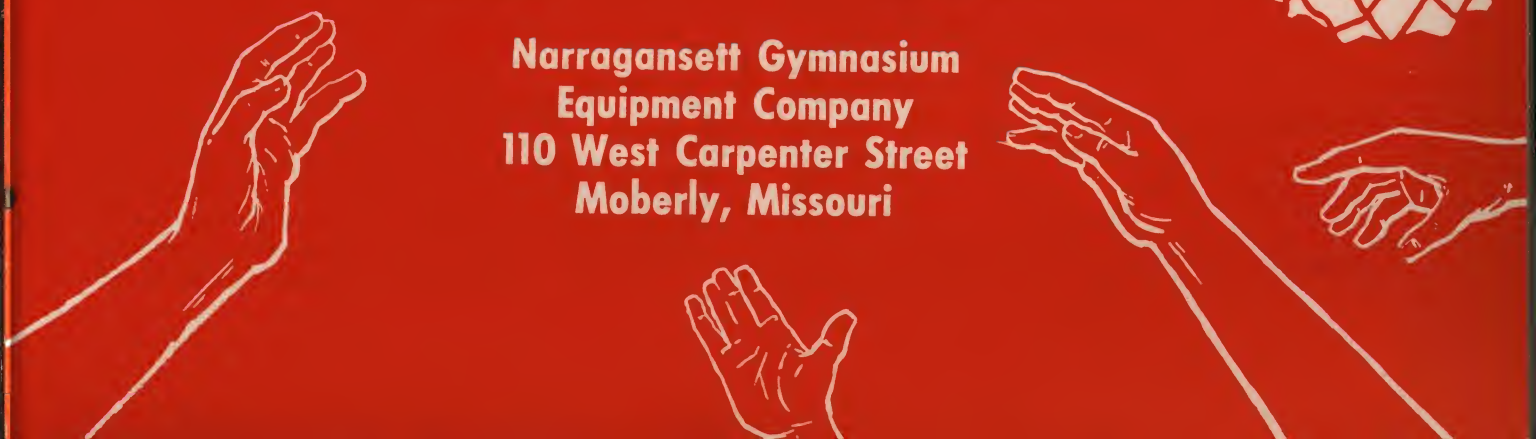
23k
Na

NARRAGANSETT

basketball backstops

Physical Training Equipment
and Folding Bleachers

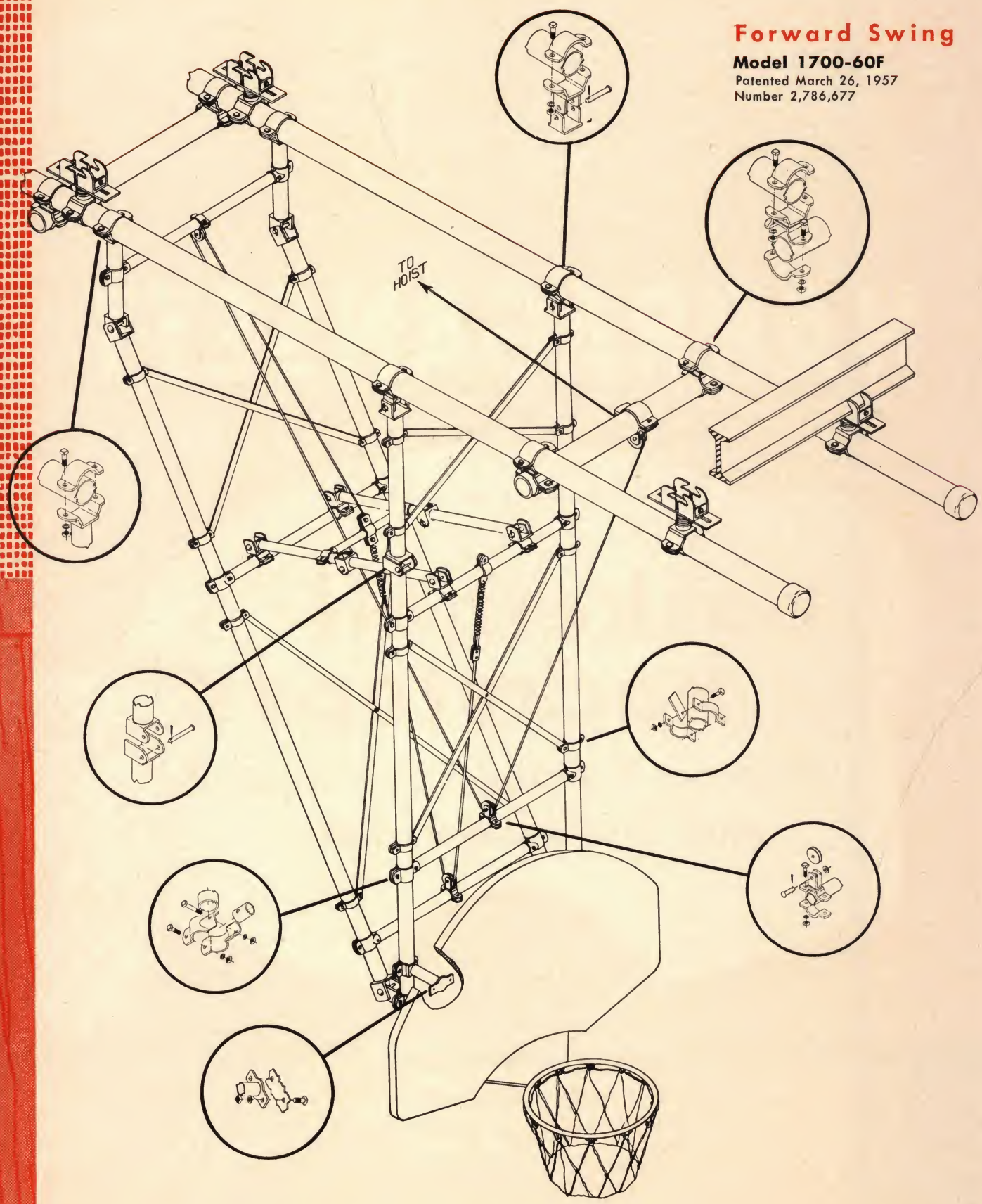
Narragansett Gymnasium
Equipment Company
110 West Carpenter Street
Moberly, Missouri



Forward Swing

Model 1700-60F

Patented March 26, 1957
Number 2,786,677



NARRAGANSETT
BASKETBALL BACKSTOPS

ceiling suspended winches

23k
Na

dimensions required

1. Distance from wall to truss.
2. Height from floor to bottom of truss.
3. Size of flange width—thickness.
4. If stage is present, height from floor to proscenium arch.
5. Face of bank from wall line.
6. Construction of wall or stage arch.
7. Distance from center of bank to wall on which winch is to be placed.

specifications

Ceiling Suspended Basketball Backstops shall be Model Number 1700-60 as manufactured by the Narragansett Gymnasium Equipment Company, Centralia, Missouri.

supporting framework

Backstop shall be suspended from 3″ ID overhead pipe attached to ceiling members in accordance with approved engineering, by means of steel I beam clamps. When truss spacing exceeds 16′0″ centers, overhead pipe shall be reinforced to minimize vibration. Backboard supporting pipes shall be 2″ I.D. with fittings for fastening to overhead or cross pipes by means of hinge joints or non-hinge as required. Brace pipe shall be 2″ I.D. pipe. Front to back bracing shall be of 1¼″ pipe. Drop pipes shall be rigidly braced with 1¼″ spacer pipes and shall be provided with 1¼″ x ¼″ flat steel cross bracing as required. Backstop furnished complete with bank, goal and net and all hoisting cable. Electric winch furnished with backstop upon request at additional charge.

bracing

FORWARD SWING: 2″ pipe extends back from the drop pipe at an angle of 30° up to the overhead 3″ pipe and fastened with pipe clips. No. 1700-50 ceiling suspended same as 1700-60 except that backstop is rigidly hung and will not raise. No winches or cables are needed.

banks and goals

Refer to page 7 and insert here selected type and specifications for each. When backstop braces are already in place, new banks and goals may be attached easily. Specify the type of backstop in place *(refer to the various types shown in this catalog)*. It is necessary that information be supplied as to the type of bank (wood, steel or glass) for which the backstop is built.

winches available

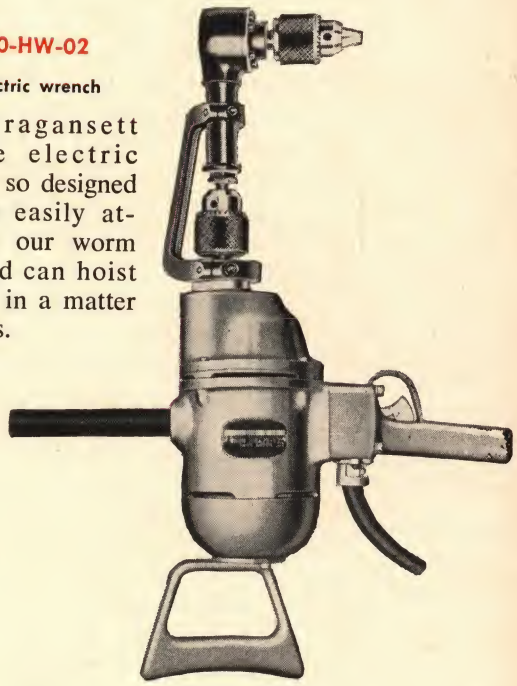
Model 1700-HW-01

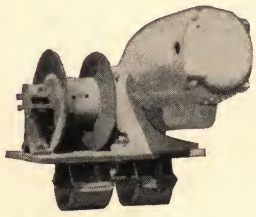
Winch operated by hand or portable electric wrench. Automatic self-locking worm gears to hold unit at any one point when lowering or raising backstops. Fully enclosed for safety. Roller type grip, removable crank.

Model 1700-HW-02

portable electric wrench

The Narragansett portable electric wrench is so designed that it is easily attached to our worm winch and can hoist backstops in a matter of minutes.





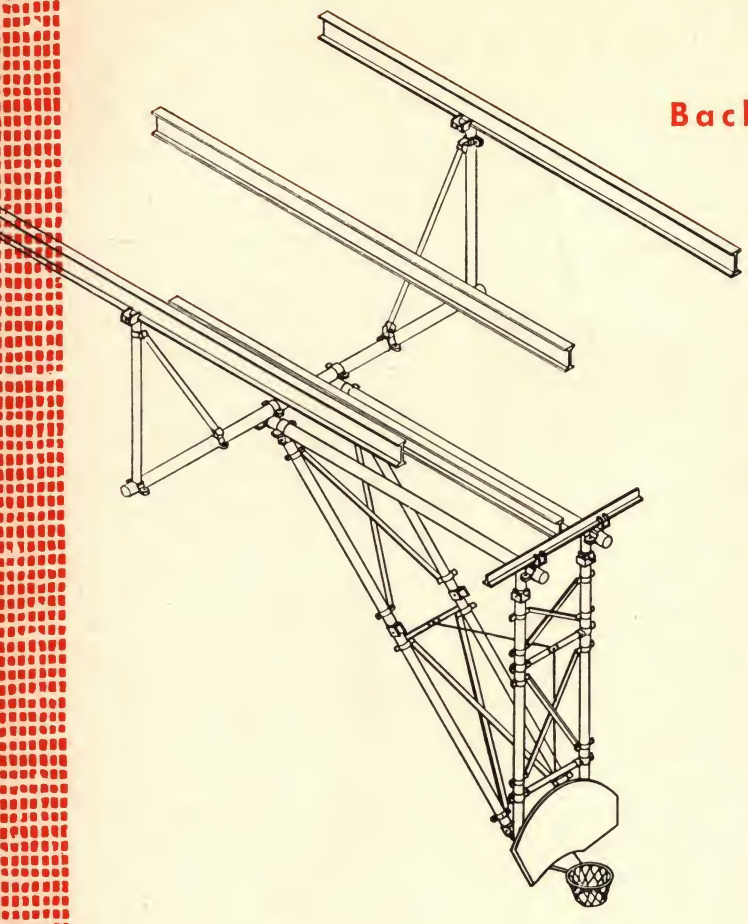
Model 1700-EW-03

Electric power driven winch concealed on backstop superstructure. Lifts one or a battery of backstops.

Switches

Conveniently located control switch. Cover reads: lower—off—raise.

Wiring and conduit shall be called for in electrical specifications.



Backward Swing

Model 1700-13F

recommended use

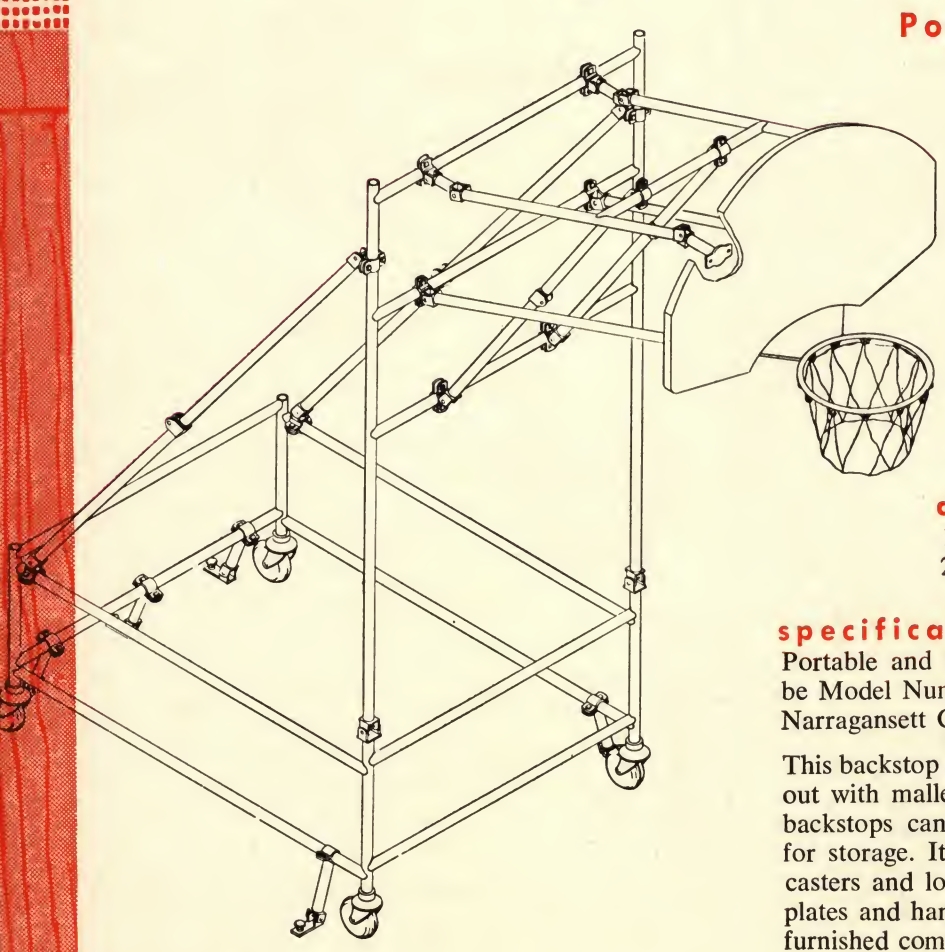
When structural conditions permit, it may be placed to serve the long major court, or the transverse minor courts. With its backward swing up action, it avoids confliction with other gymnasium activities. By the nature of its design, the action of the hoisting cable automatically "breaks" the brace joints and "jacknife" folds the braces, as the board is raised by its worm-geared winch. Thus, when raised, it presents a compact, self-contained arrangement.

dimensions required

1. Distance from wall to truss.
2. Height from floor to bottom of truss flange.
3. Size of flange—Width—Thickness.
4. Face of bank from wall line.
5. Construction of wall.
6. Distance from center of bank to wall on which winch is to be mounted.

specifications

Same as those for Model 1700-60F (refer to page 3).



Portable

Model 1700-35F

Stage Portable

Model 1700-37F

recommended use

The Narragansett Portable Model is used in auditoriums and armories where it is impractical to use any of the attached backstops. It is particularly applicable to stage front use, being fastened to the floor, strapped to the stage front, and braced to the stage floor.

dimensions required

1. Distance from floor to stage.
2. Distance from stage to face of bank.

specifications

Portable and Stage-braced Basketball Backstops shall be Model Number.....as manufactured by the Narragansett Gymnasium Equipment Company.

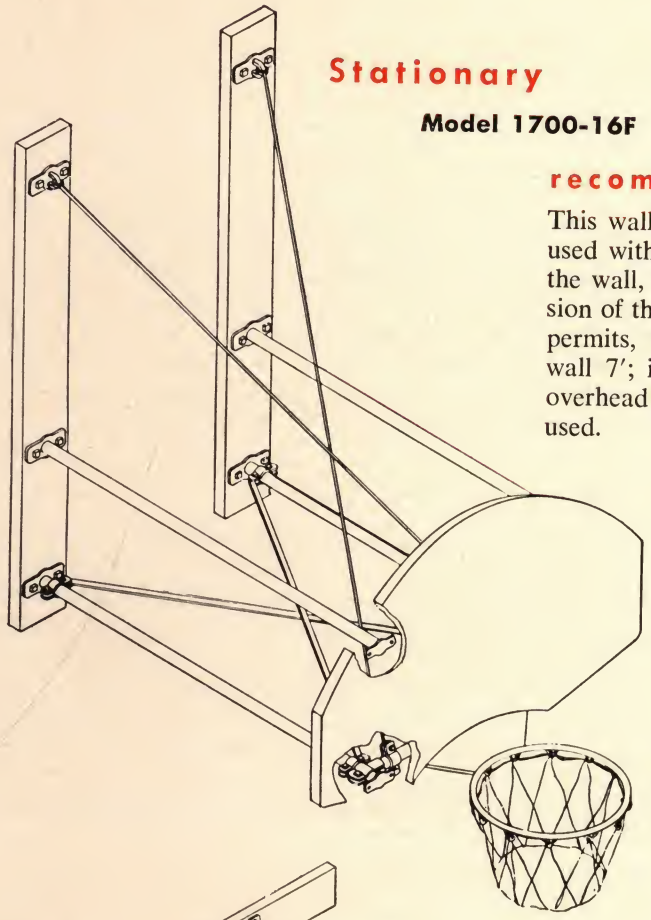
This backstop shall be constructed of 1¼" pipe throughout with malleable iron hinges in such a manner that backstops can be completely folded and rolled away for storage. It shall roll into position on rubber tired casters and lock into position by means of flush floor plates and hand locking screws. The backstop shall be furnished complete with bank, goal, and net.

NARRAGANSETT
BASKETBALL BACKSTOPS

ceiling – portable – wall

Stationary

Model 1700-16F



recommended use

This wall supported backstop conforms to official rules and may be used without reserve for actual play. It is braced out 5′ or 7′ from the wall, allowing for 3′ space outside the court plus 2′ or 4′ extension of the backstop into the playing area. Where size of playing area permits, backstops of this type may be used braced out from the wall 7′; it is recommended that, when the distance exceeds 7′, an overhead suspension type of backstop similar to the #1700-15 be used.

dimensions required

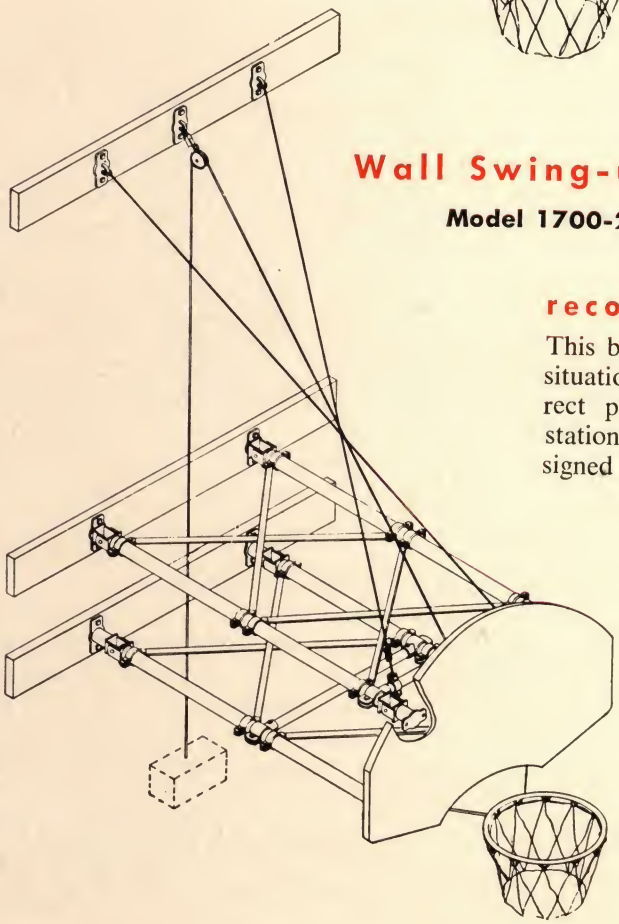
1. Distance from face of bank to wall.
2. Wall construction.
3. Complete measurements of any offsets or projections of the wall affecting the placement of the backstop.

specifications

#1700-16F—Shall consist of two 2″ x 8″ x 6′ wood stringers, four 1¼″ I.D. brace pipes attached with malleable iron castings, 1¼″ brace pipes supported by ¼″ steel guy cables with turnbuckles. 1¼″ x ¼″ F.M.S. steel braces crossed to prevent side sway. Generally used where backstop can be hung up to 7′ extension from wall.

Wall Swing-up

Model 1700-20F



recommended use

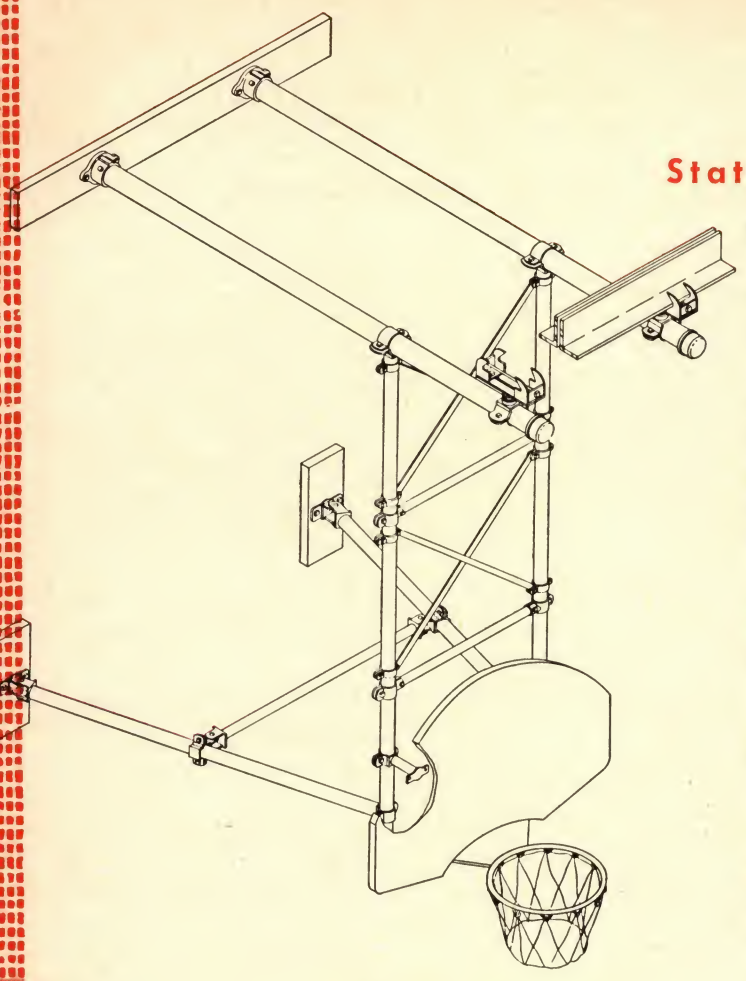
This backstop is braced from the wall but can be swung up as the situation warrants. In many cases, the wall braced type meets correct playing conditions, but projects into the room so that, if stationary, it interferes with other activities. This backstop is designed expressly to provide this flexibility.

dimensions required

1. Distance from face of bank to wall.
2. Wall construction.
3. Wall obstructions, if any.

specifications

#1700-20F—Shall consist of brace pipe 1¼″ I.D. attached with hinge fittings to wall pads and the bank. Horizontal pads to be on 2″ x 8″ x 6′ complete with hardware for attachment. Brace pipes crossed braced with 1¼″ x ¼″ flat mild steel. Backstop shall be hoisted to wall by means of worm geared winch and ¼″ preformed steel cable.



Stationary

Model 1700-15F

recommended use

This is an ideal type for use where the backstop must extend far out from the wall, or where wall or balcony face is not of sufficient strength to support alone the ordinary backstop strain. Between 5 ft. and 7 ft., this suspended style should be used. It is firmly braced against the wall, but supported from above on 3″ overhead pipe supports hung between the wall and the nearest girder, or from the girder itself.

dimensions required

1. Height from floor to bottom of flange.
2. Distance from wall to truss.
3. Distance from wall to face of bank.
4. Size of flange—Width—Thickness.
5. Wall construction.
6. Height of closed ceiling, if present.

specifications

Same as those for Model 1700-60F (refer to page 3).

Stationary

Model 1700-15F (modified)

recommended use

A fixed type wall braced backstop designed for extension beyond 7′ up to 12′.

dimensions required

1. Distance from wall to face of bank.
2. Wall construction.
3. Wall obstructions.
4. Height of wall.

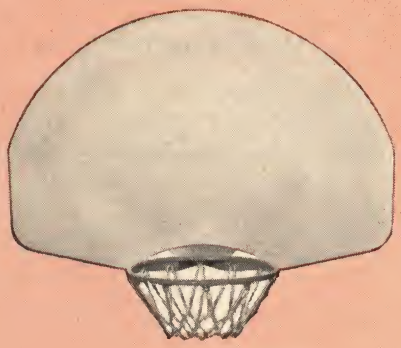
specifications

Attached to wall by means of wood stringers 2″ x 8″ x 6′ and 2″ x 8″ x 20″. Top pipes 2″ I.D.; brace pipes 2″ I.D.; cross bracing 1¼″ x ¼″ flat mild steel.

NARRAGANSETT
BASKETBALL BACKSTOPS

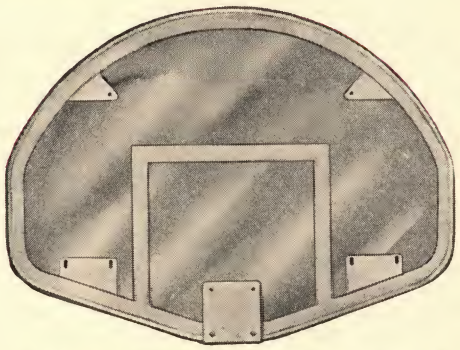
ceiling – wall
banks and goals

23k
Na



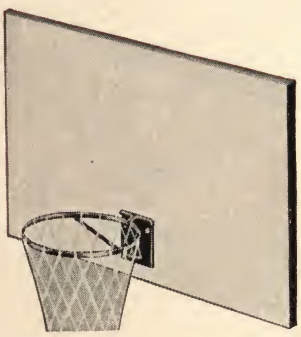
FAN SHAPED
model 1700-30F
steel bank

Fan shaped all steel bank with face drawn from one piece #12 gauge rolled steel. A flange 1½″ wide will completely surround the face and be free of projections or sharp edges. Bracing of the face shall be reinforced channel assembled and arc welded to rear of face. Attachment plates shall have ½″ slots for adjustment. Finish will consist of a prime coat and two coats of white eggshell enamel.



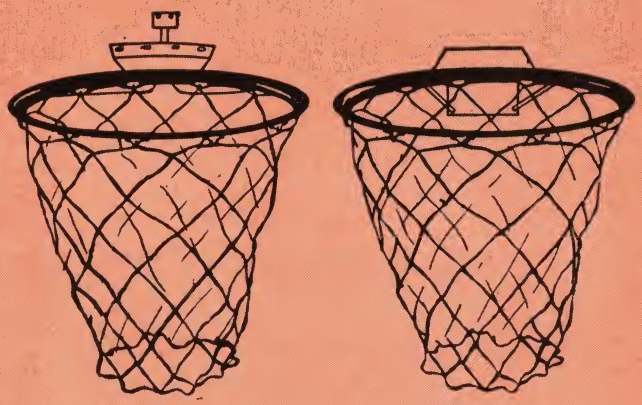
FAN SHAPED or RECTANGULAR
glass bank

Glass—⅜″ Herculite, the tempered glass that is four to five times stronger than ordinary glass of the same thickness. The edges and holes in the glass are completely protected. The frame is specially designed steel with rust preventive zinc chromate. Light grey frame is flush with glass face, leaving no projections to interfere with play.



RECTANGULAR
wood
model 1700-30

Face of the bank shall be ½″ five-ply fir plywood reinforced with 2″ x 5″ fir framework, building the back up to a 2⅛″ thickness. Two pieces of 2 x 5 and two pieces of 2 x 2½ fir reinforced by the tennon method and interspaced to insure true rebound. This panel is surrounded by moulding neatly mitered at all corners, glued and nailed to the panel. The entire surface of the bank shall be finished with one plain coat and two finish coats eggshell white enamel.



Official Goal for Fanbanks (left)—Goal shall be designed to fasten to the bottom and rear of the bank and secured by four ⅜″ x 1″ machine bolts. The ring will be of ⅝″ diameter C.R.S., two braces of ¼″ x 1″ flat stock, bracket of 3/16″ x 6″ strip steel for good fastening. Orange color.

Standard Goal for Wood Banks (right)—Goal shall be designed to fasten through the face of the bank and secured by four ⅜″ x 2½″ machine bolts. Make up of the goal is the same as that of the official goal. Net of seine twine and regulation size secured to ring by "no-tie" clips.

Accessories

hand and end rails

When required, removable hand and end rails are supplied for use at the exposed ends of the seats. These rails are so constructed that they can be put in place easily by slipping their posts into steel sockets. When removed, they can be folded and stored upon a footboard of the unit before closing it.

end panels

End closure panels are for covering the exposed ends of the seats when in closed position. The plywood end panels are permanently attached in place and are finished in natural wood finish.

rear seat filler boards

When the location of pilasters or other obstructions makes it necessary to install the top seat 5″ or more away from the wall, filler boards, permanently installed level with the top seat, can be supplied to close the space for safety reasons.

scorer's table

Scorer's table furnished optional.

aisles

Aisles furnished optional.

grilles

Ventilating grilles can be furnished optional if required for ventilation.

removable seat and foot boards

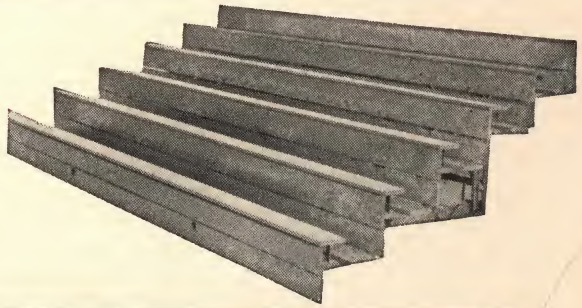
Removable seat and foot boards supplied, if desired, for obstruction in wall or for folding partitions to pass through when space does not exceed 5′0″ between seats. Removable seat and foot boards are set in place after seats are extended and removed before seats are closed. Removable boards can be stored on foot boards before units are closed.

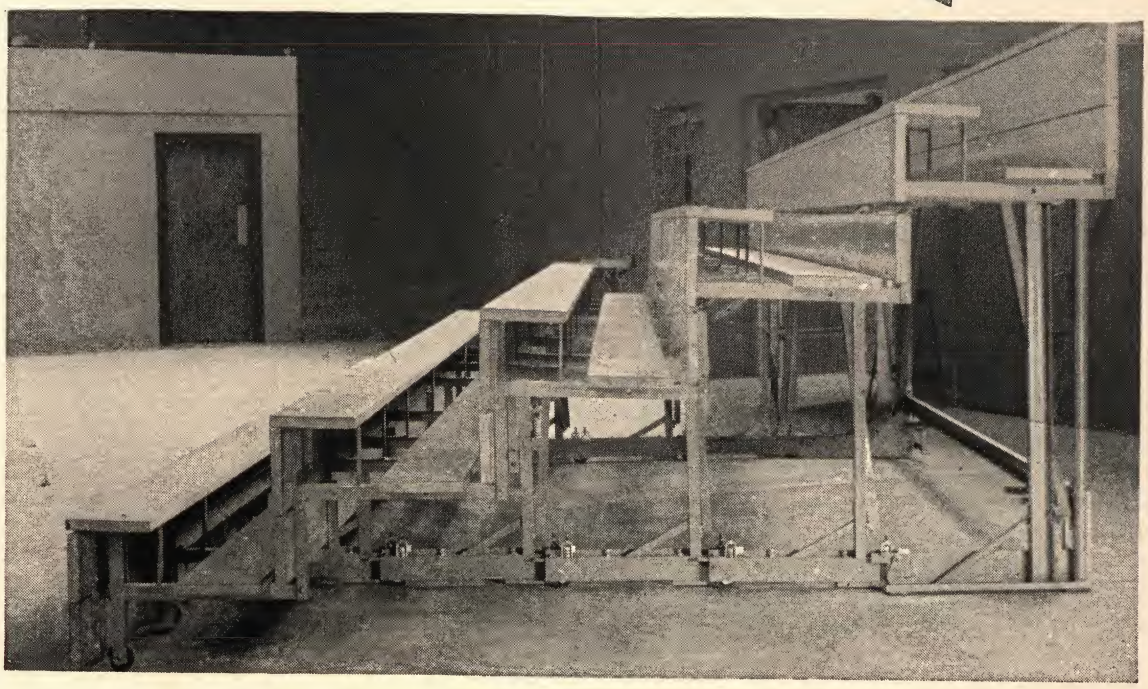
Table of Sizes

22″ depth—10¼″ rise per row

Number of Rows	Depth		Height
	Open	Closed	
3	4′- 9″	2′-11″	3′- 1½″
4	6′- 7″	2′-11″	3′-11¾″
5	8′- 5″	2′-11″	4′-10″
6	10′- 3″	2′-11″	5′- 8¼″
7	12′- 1″	2′-11″	6′- 6½″
8	13′-11″	2′-11″	7′- 4¾″
9	15′- 9″	2′-11″	8′- 3″
10	17′- 7″	2′-11″	9′- 1¼″
11	19′- 5″	2′-11″	9′-11½″
12	21′- 3″	2′-11″	10′- 9¾″
13	23′- 1″	2′-11″	11′- 8″
14	24′-11″	2′-11″	12′- 6¼″
15	26′- 9″	4′-11″	13′-4½″
16	28′- 7″	4′-11″	14′- 2¾″
17	30′- 5″	4′-11″	15′- 1″
18	32′- 3″	4′-11″	15′-11¼″
19	34′- 1″	4′-11″	16′- 9½″
20	35′-11″	4′-11″	17′- 7¾″
21	37′- 9″	4′-11″	18′- 6″
22	39′- 7″	4′-11″	19′- 4¼″
23	41′- 5″	4′-11″	20′- 2½″

Depth dimension includes 3″ between seat board and wall.





Specifications

general scope

All folding bleachers shall be as manufactured by the Narragansett Gymnasium Equipment Company, Centralia, Missouri, or equal as approved by the architect or owner.

warranty

Folding bleachers shall be guaranteed by the manufacturer against defects in material and workmanship for a period of one (1) year from date of installation.

quantity

All equipment shall be delivered and installed in good condition under the supervision of a factory-trained engineer.

design

Steel understructure parts for folding bleachers shall be designed to safely support when in use and in addition to their own weight a live load of 120 pounds per lineal foot of seat and foot board. Steel structural strength and stresses must conform to A.S.A. specifications. Stresses in wood shall be as those recommended by the U. S. Forest Products Laboratory.

construction

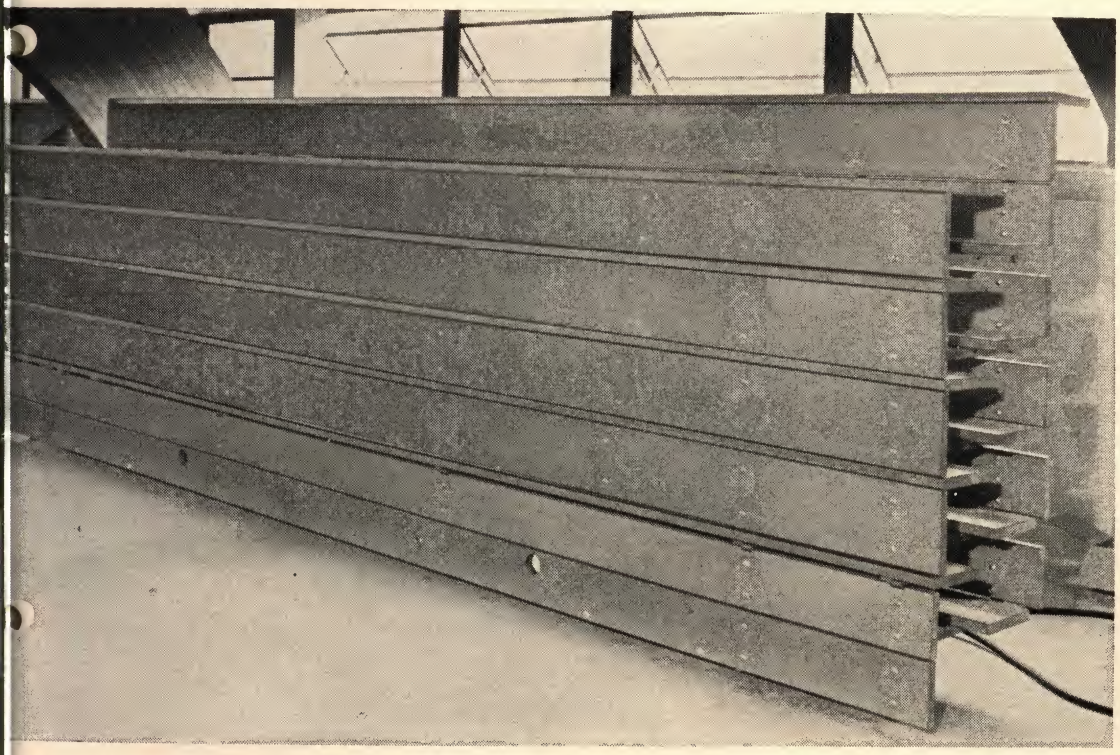
Each unit shall consist of steel understructure, columns, foot boards, seat boards, and vertical riser boards to form one complete assembly; each column except rear column shall be equipped with two (2) 3″ diameter, NO MAR rubber wheels. Rear column to be fastened stationary to wall and floor with proper hardware as appropriate wall and floor conditions permit. To transmit live load directly to the floor, the column shall establish contact with the floor. The front seat shall lock automatically by lever action by the weight of the front riser board; each unit equipped with yale lock and key to lock bleachers in open and closed position. Each row of seats starting from the front seat shall be so designed to pull completely out for seating position before the next row starts from its closed position. Rise per row 10¼″, depth per row 22″, height per seat 17″.

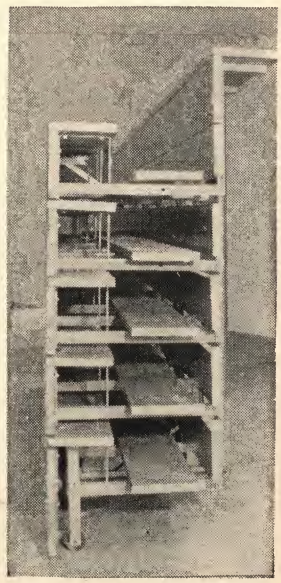
boards

Foot, seat and riser boards shall be of best grade clear lumber of solid or glued laminated boards; finished size shall be 1¼″ x 9″ for seat and foot boards, 1¼″ x 7″ for riser boards with edges and ends beveled and sanded smooth. Foot, seat and riser boards shall be surfaced both sides with an ⅛″ thick, 4500 lbs., P.S.I. (to prevent splinters) average tensile strength, industrial WEYTEX hardboard as manufactured by WEYERHAUSER.

finish

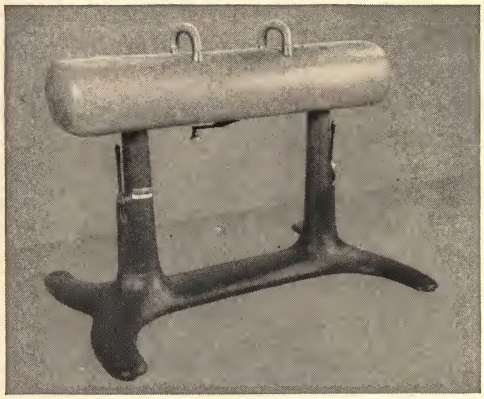
All steel parts shall be finished in gray, school brown or black enamel as chosen by architect or owner. All wood parts and WEYTEX shall be sanded and finished sprayed with two (2) coats of hot lacquer after sealing all surface against moisture. Exposed carriage bolt heads in seat, foot, and riser boards shall be CADMIUM plated.





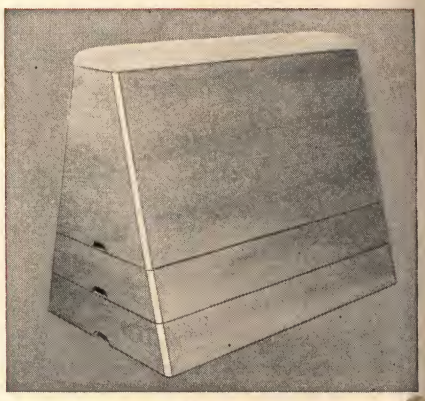
physical training equipment

Items on pages 10 and 11 illustrate the most popular types of equipment of our manufacture. For any item not listed please contact the factory.

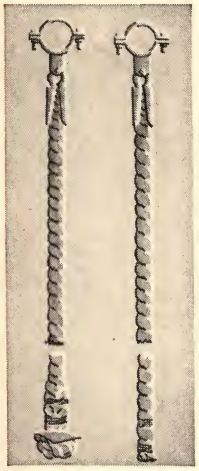


standard horse—no. 600
For gymnasium and physical education centers, the standard horse is one of the basic apparatus used in physical development.

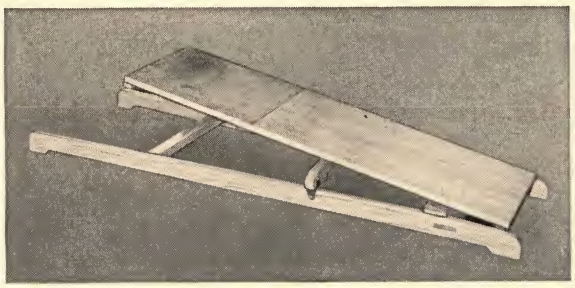
standard buck—no. 620
The large base with its weight low makes a particularly stable support for the adjustable buck.



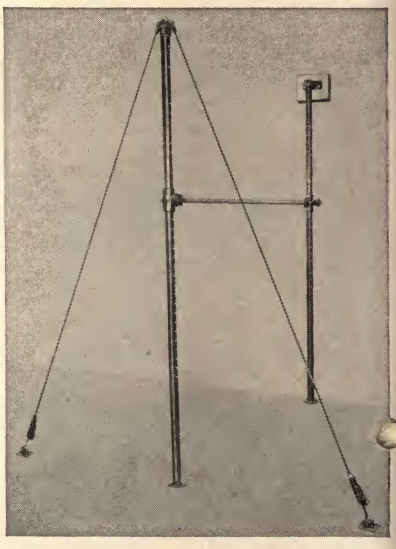
vaulting box—no. 900
Made of light, strong wood with three lifts for adjustment of height. Top lift padded with hair felt, and covered with best grade leather reversed to give permanent non-slip surface. Top lift is 33" high and each of the two under lifts 8"; total height, 49".



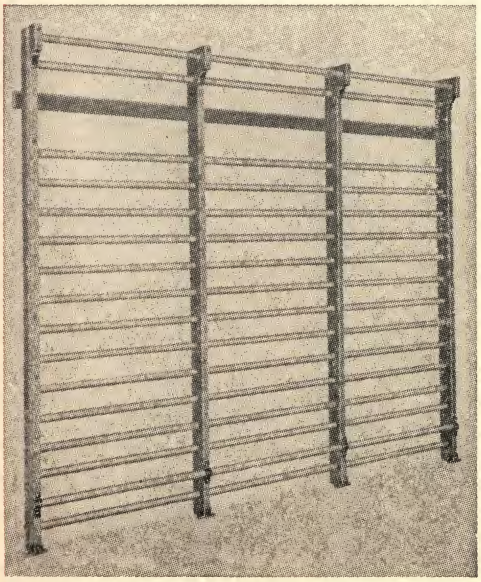
climbing ropes—no. 550 and no. 551
Manila ropes are designed for durability, correct size and safety. Knot is leather covered. Made of best grade pure manila or cotton rope.



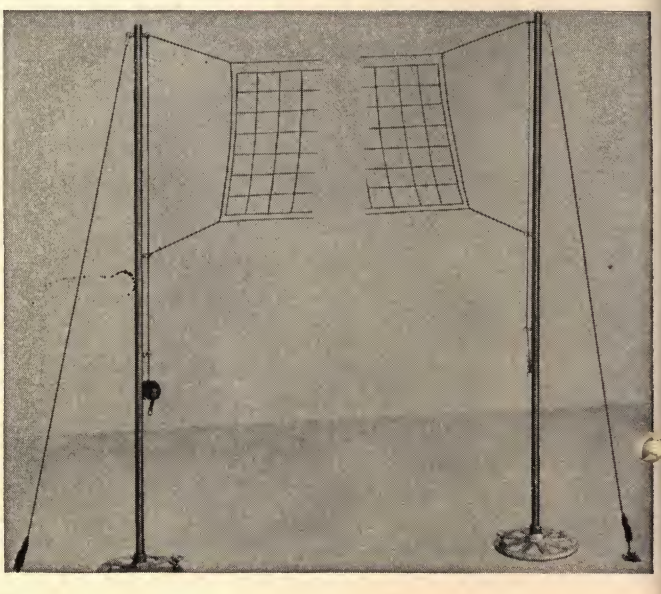
inclined spring board—no. 649
Made of New England ash. It is light and can easily be moved, yet stands firm without fastening. Rubber shod and covered with cork carpet on upper end.



horizontal bar—no. 376A
Permanently attached to side wall. Can be folded flush when not in use. Safety clamping sleeve holds bar in any position for vaulting.

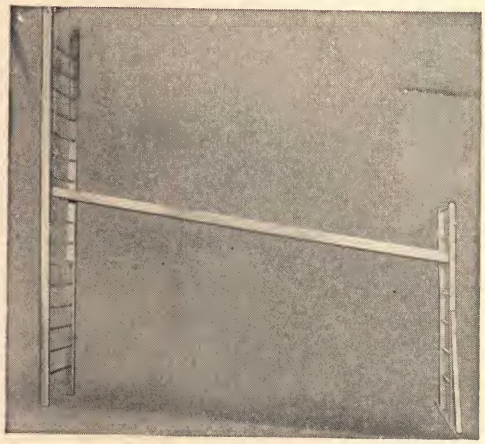


stall bar—no. 920
Swedish stall bars in three foot sections are made of fine hardwood. Order by number of sections desired.

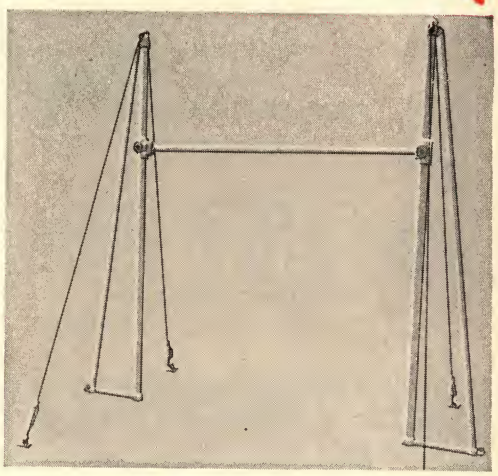


volleyball standards no. 1729-11
Combination volleyball, tennis and Badminton standards (all steel) with guys, floor plates and reel.

miscellaneous

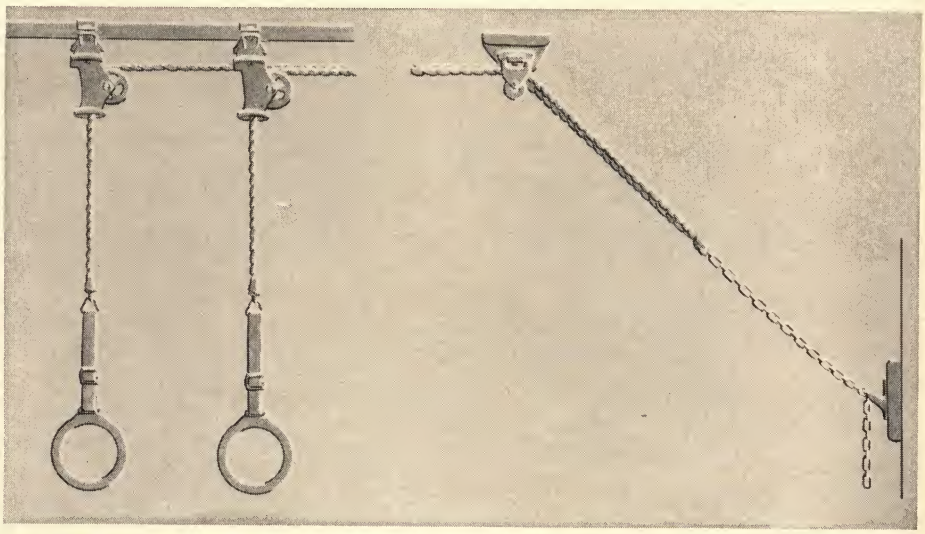


adjustable ladder—no. 813
Adjustable ladder including foot ladder.



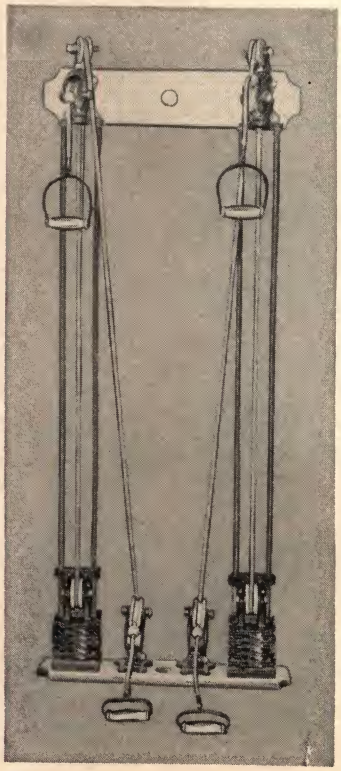
horizontal bar—no. 378A
This bar can be quickly put up or taken down. Does not occupy much floor space and it is very rigid, the uprights being held firm by braces.

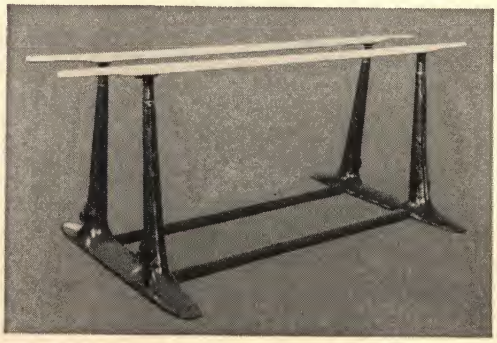
traveling ring—no. 700
Leather covered metal ring.



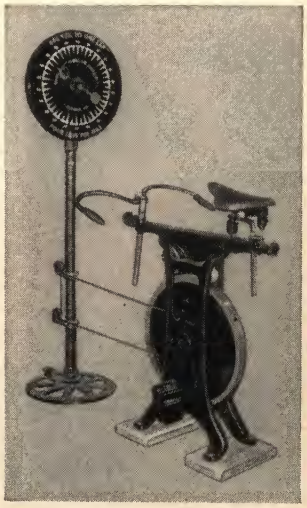
adjustable flying rings—no. 725
May be lowered to floor and used as swing, or hoisted to ceiling. The pivot blocks in which the ropes swing are bell mounted.

chest weight—no. 265
Used in many homes and gymnasiums, this is one of the most popular pieces of equipment. It is noiseless and self lubricating.





parallel bar—no. 838
This bar insures rigidity and security. It is necessary for all complete gymnastic equipment. Adjustable for both height and width.



bicycle trainer—no. 330
For interest value and excellent exercise, this bicycle trainer is suited particularly to the complete gymnasium.

Narragansett installations

North Bellemore High School
North Bellemore, New York

North Merrick High School
North Merrick, New York

Levittown High School
Levittown, New York

Mansfield High School
Mansfield, Massachusetts

Frankford High School
Philadelphia, Pennsylvania

Holyoke Street School
Lynn, Massachusetts

Silver Lake School
Lynn, Massachusetts

Pickering Jr. High School
Lynn, Massachusetts

Sandy Valley High School
Canton, Ohio

Rhode Island State University
Providence, Rhode Island

Anderson Y.M.C.A.
Anderson, South Carolina

Holly Hills High School
Holly Hills, North Carolina

Harvey Bolich Jr. High School
Cuyahoga Falls, Ohio

St. John the Evangelist School
Plaquemine, Louisiana

Y.M.C.A.
New Orleans, Louisiana

Clayton High School
Clayton, Missouri

St. Vincent's High School
Perryville, Missouri

Cornell College
Mt. Vernon, Iowa

Deer Park High School
Deer Park, Texas

Arizona State College
Tempe, Arizona

Pittsburg High School
Pittsburg, California

Long Beach State College
Long Beach, California

Eugene High School
Eugene, Oregon

Independence High School
Independence, Iowa

Lindbergh High School
St. Louis County, Missouri

Natick High School
Natick, Massachusetts

Sullivan County High School
Sullivan County, Tennessee

New York Public Schools
New York City, New York

Edward L. Constance High School
Miami, Florida

A & M College of Texas
College Station, Texas

Narragansett Gymnasium Equipment Company
110 West Carpenter Street
Moberly, Missouri

Digitized by:

ASSOCIATION
FOR
PRESERVATION
TECHNOLOGY,
INTERNATIONAL
www.apti.org

BUILDING
TECHNOLOGY
HERITAGE
LIBRARY

https://archive.org/details/buildingtechnologyheritagelibrary

From the collection of:

Carol J. Dyson, AIA